UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,946	01/20/2006	Pierre Bonnat	5769P006	4491

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EXAMINER
HOLTON, STEVEN E

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/530,946	BONNAT, PIERRE
	Examiner	Art Unit	
	Steven E. Holton	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 October 2010*.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-10* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   This Office Action is made in response to applicant's amendment and petition to

revive filed on 10/19/2010. Claims 1-10 are currently pending in the application. An

action follows below:

Response to Arguments

2.   Applicant's arguments filed 10/19/2010 have been fully considered but they are

not persuasive.

The Applicant has argued that the prior art, Felsenstein et al., failed to disclose

the use of the 'gradient values between the input values to control an action of the

computer system." The Examiner respectfully disagrees.

The Examiner does agree that the Applicants have defined the gradient within

the specification as the difference in measurements for the sensors over time, which is

also the change in measurements over time. The Examiner further agrees that the

gradient calculation of Felsenstein as shown in Fig. 4 is a different type of gradient than

the one as defined within the specification. However, Felsenstein does discuss the use

of determining changes in measurements over time to determine actions of a computer

system (col. 9, lines 29-33; col. 10, lines 5-7 and lines 48-54).

In the cited passages Felsenstein notes that changes in measurements overtime

can be determined based on measurements from the sensors at multiple points of time.

The changes in measurements over time can be used to determine fluid acceleration

and that fluid acceleration may be used as part of the "breathing language" to determine

different instructions used to control a device such as a computer system.

Therefore, the Examiner finds that Felsenstein does teach the use of input values

and gradient values (changes over time of sensor readings) to control actions of a

system that could be a computer system. As such, the rejection of the claims in view of

Felsenstein is maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3.   Claims 1, 3-6, and, 10 are rejected under 35 U.S.C. 102(a) as being anticipated

by Felsenstein et al. (USPN: 6421617), hereinafter Felsenstein.

Regarding claim 1, Felsenstein discloses a method of controlling a computer

system comprising "receiving a plurality of input values from a plurality of fluid current

sensors (Fig. 1, elements 102; col. 4, lines 15-31); and using the input values and

gradient values between the input values to control an action of the computer system

(Fig. 4 shows various calculations that can be performed on the fluid sensors; col. 9,

line 22 – col. 10, line 7 and col. 10, lines 48-54 describe different calculations including

measurements from the sensors, differences between sensors, and differences

between sensor measurements over time as usable for controlling the system)."

Regarding claim 3, Felsenstein discloses "wherein the input values are compared with a predefined threshold value to determine the control of the computer system (col. 10, lines 30-37).

Regarding claim 4, Felsentstein discloses "wherein at least one gradient value is sued to determined whether or not to switch between a Boolean input mode and a functional input mode (col. 10, line 55 – col. 11, line 15). The sensor of Felsenstein is able to determine different directions and strengths of fluid flow for scrolling in different directions as well as more powerful directed breaths to determine clicks and other Boolean functions. It would be inherent that different gradient and sensor measurements would be used to determine the differences between click and scroll inputs based on different levels of fluid flow at different sensors.

Regarding claim 5, Felsenstein discloses including mouse clicks (col. 11, lines 10-16). This would at least include a single click action as this is the most common of all mouse click abilities.

Regarding claim 6, Felsenstein discloses providing scrolling functions on a computer screen (col. 10, line 55 – col. 11, line 9).

Regarding claim 10, the Examiner notes that this claim is a method related to claims 1 and 2. Felsenstein discloses a device that samples "a plurality of fluid current sensors at predetermined intervals to obtain a plurality of input values from the fluid current sensors (col. 8, lines 7-20)". Felsenstein then stores the input value data and transmits it to a processor (Fig. 3, element 301 receives data from the arrow labeled OUT; data is then transmitted between different processors for calculation and analysis,

this would inherently require some sort of storage of the data in a memory or similar

device; col. 8, line 21 – col. 9, line 7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 2 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Felsenstein.

Regarding claim 2, Felsenstein does not expressly disclose storing input values

from the sensors in a data buffer. Felsenstein discusses transmitting input values to

processors for calculation and analysis (col. 8, line 21- col. 9, line 7). Felsenstein also

discusses reading information from different sensors in a sequence (col. 8, lines 6-20)

and that data could be filtered for noise and other actions (col. 9, lines 8-33). Although

Felsenstein does not expressly disclose storing the values in a data buffer, the

processors would store the input values in some sort of computer memory so that the

information could be used in calculations and analysis by the processors. At the time of

invention it would have been obvious to one skilled in the art that data buffer could be

used to store the input information to be read by the processors for calculation and

manipulation of the input values. Data buffers and other memory devices are well

known in the art as circuit elements capable of storing input data from sensors for use

with microprocessors. Therefore it would have been obvious to one skilled in the art

that a data buffer or similarly equivalent storage structure could be used as part of the

sensors device of Felsenstein.

Regarding claim 7, Felsentstein discloses receiving sensor data from an array of

plural fluid current sensors (col. 4, lines 14-31). Felsenstein also discloses that different

arrangements and numbers of sensors could be used for the fluid flow sensors. Thus, it

would be obvious to one skilled in the art that the system of Felsenstein could be

changed to use three or any other number of fluid current sensors based on design

choice. The choice would depend on size, cost and other factors when choosing the

number and arrangement of fluid current sensors to be used.

Regarding claim 8, Felsenstein describes that various calculations can be

performed on the input data provided from fluid current sensors to determine direction of

flow and other values (col. 9, line 34 – col. 10, line 7). At the time of invention the

selection of one type of calculations or a different type of calculations for determining

information from a set of sensors would be based on the number and position of

sensors within a device. Thus, it would be a matter of design choice to select the

mathematical calculations used to determine X and Y axes of direction of fluid flow or

any other type of useable data. The calculations would be selected based on the

arrangement and number of sensors used within the entire system.

Regarding claim 9, Felsenstein discloses providing implementing mouse click

functions based on specific fluid flow at predefined locations on the sensor (col. 11,

lines 9-15). Directed fluid flow at different locations would require transferring fluid

current flow from one sensor to a different sensor based on the area for specifying a mouse click function. At the time of invention it would have been obvious to one skilled in the art that directed fluid flow to different areas could be used to provide different types of input including different mouse click functions and actions. It would be a matter of design choice for one skilled in the art to define different mouse clicks based on fluid current flow on one sensor or a different sensor or a combination of sensors.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Volta (USPN: 4746913) discloses a single sensor sip/puff type of fluid sensor. Cromer, Jr. et al. (USPN: 5465026) and Beltz (USPN: 6801231) discloses more complex sip/puff arrangements of single and multiple fluid sensors for control of computer systems including mouse click functions.

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Steven E. Holton whose telephone number is (571)272-

7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bipin Shalwala/
Supervisory Patent Examiner, Art Unit 2629

/Steven E Holton/
Examiner, Art Unit 2629
January 3, 2011